

PATENT  
Attorney Docket No. 249.303

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors : Joseph S. Bieganek and Thomas R. Hetzel  
Serial No. : 10/628,860  
Filed : July 28, 2003  
Title : CONTOURED SEAT CUSHION AND METHOD FOR  
OFFLOADING PRESSURE FROM SKELETAL BONE  
PROMINENCES AND ENCOURAGING PROPER  
POSTURAL ALIGNMENT  
  
Group Art Unit : 3673  
Confirmation No. : 3850  
Examiner : Michael Safavi

**PETITION TO INVOKE SUPERVISORY AUTHORITY UNDER 37 CFR 1.181**

Mail Stop Petitions  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicants, by and through their attorney, hereby respectfully petition for clarification of the April 25, 2006 office action. Specifically, it is requested that:

1. Factual support be provided for the Examiner's repeated position that "the applied prior art can present the same effect depending upon how it is utilized," as stated on pp. 26, 28, 31, 33, 35 and 36, or to withdraw this rejection if no such reasonable explanation can be provided;
2. Legal authority be cited upon which the Examiner intends to rely for the position that functional claim limitations can be disregarded when determining claim scope and patentability, as stated at throughout the April 25 office action, or to withdraw the rejection if no such legal authority is cited;
3. The 35 USC 112, 2nd ¶ rejection on pages 2-23 be clarified, and that a reasonable number of claims be selected as representing the alleged §112, 2nd ¶ problems so that those claims can be argued for purposes of the entire rejection;

Serial No. 10/628,860

4. The time for response be restarted after clarification; and
5. Such other reasonable and appropriate relief be given as will promote the reasonable and straightforward future examination of this application.

No fee is believed necessary for submission of this Petition. However if this is incorrect, the undersigned's Deposit Account 12-1087 may be charged.

The massive number of issues presented by the April 25 office action requires underlining in the attached copy of pp. 2-36 of the April 25 office action to describe more completely the issues referred to below.

I. The Application and Its Prosecution

The application claims a cushion having a defined support contour which interacts with the pelvic and thigh bone skeletal and anatomical structure of a human to support the person at locations of broad tissue masses and to relieve pressure at bony prominences where thin tissue is prone to pressure sores, and to encourage better posture, among other improvements. Figs. 2-7 describe the support contour and its interaction with the anatomy. Fig. 8 shows the support areas at 60, 62, 64 and 66 and the relief areas at 32, 36 and 46. A method of configuring the support contour and a method of supporting, and relieve pressure on, the anatomy are also claimed.

The patentability of the invention hinges the interaction of these support and relief areas with the human body, as would be the case with any inventive cushion.

The Applicant believes that the cited prior art does not explicitly describe the claimed support contour or method. Apparently the Examiner also implicitly agrees because the April 25 office action asserts the right to disregard functional claim limitations on the basis of alleged result, effect, use, intended relationship, consequence, desired arrangement, etc., thereby broadening the claims to facilitate their rejection. The April 25 office action also asserting that the prior art is capable of achieving the same effect depending on the manner of use, which position would not be asserted in the prior explicitly anticipated the claims. Furthermore, the April 25 office action asserts that the claims are indefinite enough to disregard the claimed functional

Serial No. 10/628,860

interactions of the support contour with the anatomy. This is all asserted despite the definitional approach of the pending claims not being substantially different from the definitional approach of claims in issued US patents for cushions.

## II. Requests 1 and 2

Previous requests to the Examiner for the information of items 1. and 2. have been ignored. See "Request for Information," pp. 29-30 of December 14, 2005 Amendment, and "Interview," pp.22-23 of December 14 Amendment. There is no reason to believe that a repeated request will produce a different result.

The Applicant has been forced to guess at the factual basis and legal authority when responding previously to these same rejections. The Examiner then dismissed the Applicants arguments and explanations as "not persuasive," without ever articulating a basis for his positions in the first instance. The Applicant should not be forced to continue to speculate. Such clarity will be required by the Board of Appeals.

A. Request 1 is significant. The Examiner has taken the position that the prior art cushions can present the same claimed subject matter. See pp. 26, 28, 31, 33, 35 and 36. This rejection cannot be understood without an explanation. If as the Applicant believes, the prior art cushions do not describe the relief and support features now claimed, how can the same prior art cushion be made to perform as claimed? If the prior art cushions are turned upside down, or sideways, or backwards, what does the Examiner see in such unintended configurations that the patentee did not explain? Alternatively, if the prior art cushions truly anticipate the pending claims, what purpose is served by invoking dependence upon some undefined and unintended manner of use? The Applicant cannot guess at such unexplained possibilities. Neither can the Board of Appeals. If the Examiner cannot explain precisely these hypothetical manners of use, the anticipation rejections should be withdrawn.

B. Request 2 is also significant, because it addresses the primary issue of this examination. That issue is whether functional limitations can be disregarded when examining the pending claims for patentability. See Interview Summary of October 11,

Serial No. 10/628,860

2005 and "Interview," p. 22 of the December 14, 2005 Amendment. The Applicant has cited a case holding that functional limitations must be considered in determining patentability, even when the functional limitations involve nonstatutory subject matter. See "Legal Basis," p. 25, December 14, 2005 Amendment. Presumably, the human body is nonstatutory subject matter in the present context. In response, the Examiner appears to now articulate the rejection using different semantical terms (effect, result, consequence, use, relationship, etc.). Nevertheless, the meaning and the examination consequence of the rejection is the same—functional limitations have been ignored. The Examiner has not cited the legal authority upon which he is relying to disregard functional claim limitations, despite the fact that he said he "might" do so. See "Interview," p. 22, December 14, 2005 Amendment. The time has come for him to do so. The Applicant and the Board of Appeals are entitled to this clarification. Otherwise, the rejection should be withdrawn.

### III. Request 3

Characterizing the functional claim limitations as unclear in the §112, 2nd ¶ rejection appears intended to support collaterally the principal issue of disregarding functional claim limitations for patentability purposes. The §112, 2nd ¶ rejection also complicates the issue by presenting other scattered issues, none of which to be true indefiniteness issues. Clarification is required for any reasonable response to the rejection.

Under circumstances where the Examiner took the time and energy to write 20 pages alleging the indefiniteness of almost every pending claim, a request for clarification would be fruitless, especially since many of the alleged §112, 2nd ¶ issues have been addressed previously during prosecution.

Some of the more of the incomprehensible aspects of the §112, 2nd ¶ rejection are referred to below with the aid of underlining in the attachment.

In previous prosecution, Examiner asserted that the claims lacked structure. See Interview Summary, October 11, 2005 and "Interview" and "New Claims," pp. 22-23

Serial No. 10/628,860

of the December 14 Amendment. The claims were amended to make them more structural and descriptive. As a consequence, the claims became more lengthy and complex. Now, the Examiner uses the pretext of greater descriptiveness and complexity to assert indefiniteness. The Examiner has parsed the recitations in an unintended and unreasonable manner to create the alleged indefiniteness. When read reasonably and as intended, the claims are sufficiently definite. This issue will stand on its own on appeal. However, the additional scattered issues having nothing to do with §112, 2nd ¶, should be articulated clearly to enable the Applicant to respond.

The §112, 2nd ¶ rejection presents many instances of "it is not understood how" or "it is not understood as to what" or "how" comments and questions concerning the claim elements. See underlining in the attachment. Such questions would appear to go to the sufficiency of the specification under §112, 1st ¶, or may raise a §101 issue, but not raise claim indefiniteness under §112, 2nd ¶. Indeed, the Examiner even refers to the specification in reference to the rejections of claim 41, p.10, claims 75 and 76, p. 12, and claim 72, p. 22. Clarification is requested.

The §112, 2nd ¶ rejection asserts that the claims "do not appear to recite procedural steps," do "not appear to set forth procedural steps which are performed by person or machine," and even states that "no method is being performed." See pp. 13-23. These allegations would appear to be §100 or §101 issues. Clarification is requested.

Alternatively, the §112, 2nd ¶ rejections on pp. 13-23 may be asserting that the dependent claims do not further limit the preceding claims. Certainly this is the case of the rejection of claims 62 and 63 on p. 9. These allegations appear to be §112, 4th ¶ rejections, not §112, 2nd ¶ rejections. Clarification is requested.

The §112, 2nd ¶ rejection appears to assert that method claims cannot contain conditional limitations, i.e., the claim "only set(s) set forth a desired method if and when a given circumstance occurs," pp. 14-16 and 19-21. The Examiner should cite whatever authority, under §112, 2nd ¶ or any other section of the US patent law, which

Serial No. 10/628,860

prohibits conditional claims or regards conditional claims as indefinite per se.

Clarification is necessary.

On pp. 8-12, the §112, 2nd ¶ rejection appears to construe the claims as reciting parts of a human being, or a combination of nonstatutory human subject matter and statutory methodology. If accurate, the rejections would appear to be based properly on §100 or §101, not §112, 2nd ¶. Curiously, the Examiner later appears to assert that the claims are defective for not reciting a human being. See pp. 34-36. Which is it?

The widely ranging nature of the §112, 2nd rejection should not inhibit the Applicant's ability to present it on appeal. It is requested that the Examiner select a reasonable number of pending claims that he considers as representing all of the indefiniteness issues, so that the Examiner, the Applicant and the Board will have a realistic opportunity to focus on the alleged §112, 2nd issues.

III. Requests 4 and 5

Adequate time to respond to the requested clarifications seems not only reasonable but required under due process.

The examination of this application has been anything but straightforward. Any relief or guidance in effecting future straightforward examination would be greatly appreciated.

Respectfully submitted,

Date: 6/23/06

By:   
John R. Ley  
Registration No. 27,453  
ATTORNEY FOR APPLICANT

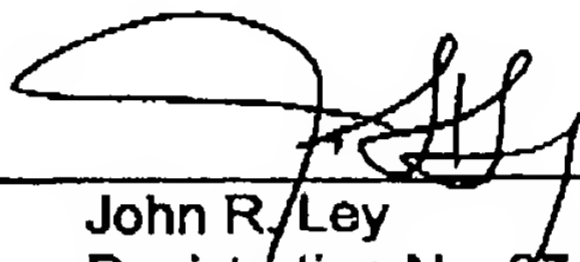
Customer No. 28785

JOHN R. LEY, LLC  
5299 DTC Blvd., Suite 610  
Greenwood Village, Colorado 80111-3321  
Telephone: (303) 740-9000  
Facsimile: (303) 740-9042

Serial No. 10/628,860

Certificate of Filing by Facsimile Transmission

The undersigned hereby certifies that the foregoing **PETITION TO INVOKE SUPERVISORY AUTHORITY UNDER 37 CFR 1.181**, and its attached copy pp2-36 of the April 25, 2006 office section, are being transmitted by facsimile to the United States of Patent and Trademark Office, at the Central PTO facsimile number 571 273 8300, this 23rd day of June, 2006.

  
\_\_\_\_\_  
John R. Ley  
Registration No. 27,453  
ATTORNEY FOR APPLICANT

Customer No. 28785

JOHN R. LEY, LLC  
5299 DTC Blvd., Suite 610  
Greenwood Village, Colorado 80111-3321  
Telephone: (303) 740-9000  
Facsimile: (303) 740-9042

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 2

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 14, 2005 has been entered.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 65 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not appear to have originally presented a cushion having a channel possessing "a V-shaped curvature of increasing transverse width with increasing vertical height".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 3

Claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 appears unclear and confusing with most, if not all, of the claim language reciting a presumed effect or a desired arrangement.

As to article of manufacture, (a cushion):

For example, lines 2-4, 8-22, 28-33, 38-45, 50-56, 64-70, and 75-89 of **claim 53**, (directed to an article of manufacture), appear to recite nothing more than a supposed consequence or a preferred position. Claims 53-69 are replete with language apparently directed to a presumed effect or a desired arrangement. Such language only serves to complicate any effort to garner that which claims 53-69 are attempting to define. Secondly, claims 53-69 appear to define the "support contour" relative to parts and portions of the cushion. For example, claim 53 beginning at line 8 recites, "the support contour defined relative to a longitudinal midline...". However, it is not understood how the "support contour" can be defined in terms of parts or portions of the cushion when those parts and portions serve to define the "support contour" as a whole. See, as other examples, passages beginning at each of lines 16, 37, 75, and 76/77. The language within each of these passages appears to then further define some, if not all, of those parts or portions. Such arrangement of language only serves to present a labyrinth of elements and features that does not clearly spell out the invention to be patented.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 4

Line 5 of claim 53 appears to introduce a "rear wall". However, though claim 53 continues to recite "rear wall", claim 53 also appears to present a "back wall" as within lines 46, 50, 58, 63, (as examples). Is "back wall" intended to be the same as "rear wall"? Or, does "back wall" define an entirely different element from "rear wall"?

Claims 54, 57, 58 and 64, for example, variously recite, "the lateral posterior buttocks support areas and the proximal thigh support areas..." when there does not appear to be an appropriate antecedent basis for either of the terms "the lateral buttocks support areas" and "the proximal thigh support areas". This is but one example of where the claim language appears to present multiple names for various parts of the invention. Thus, it is not clear as to what is being defined in each of claims 54, 57, 58, and 64. As another example, claims 55 and 56 recite "the horizontal extent of the ischial tuberosities relief area" when there does not appear to be an appropriate antecedent basis for the term "the ischial tuberosities relief area", (thus, no appropriate antecedent for "the horizontal extent of the ischial tuberosities relief area"). Claim 60 recites "the proximal thigh support areas..." when there does not appear to be an appropriate antecedent basis for the term "the proximal thigh support areas...". Claim 61 recites "the locations of the proximal thigh support areas beneath the proximal thigh bones of the person supported by the support cushion" when there does not appear to be an appropriate antecedent basis for the term "the proximal thigh support areas" or "the proximal thigh bones of the person supported by the support cushion", (thus, no appropriate antecedent for "the locations of the proximal thigh support areas beneath the proximal thigh bones of the person supported by the support cushion"). Claim 62,

Application/Control Number: 10/628,860

Page 5

Art Unit: 3673

as well, appears to present terms that are intended to define what has already been established by other terms. Thus, it is not clear as to what is being defined in each of claims 54-58 and 60-64.

**Claim 62** recites, "the elevational support force from the lever-like mechanical advantage of the fulcrum-like interaction of the proximal thigh support areas with the proximal thigh bones of the person when supported by the support contour". Does claim 62 serve to further limit the invention defined by claim 53? The language of claim 62 appears directed to nothing more than a presumed effect in the course of a desired use. The language of **claim 63** appears incomplete. Otherwise, it is not clear as to what the "support force" achieves. Further, Does claim 63 serve to further limit the invention defined by claim 53? The language of claim 63 appears directed to nothing more than a presumed effect in the course of a desired use.

As to process of making a cushion (recited as "method of configuring an upward facing support contour"):

It is not clear from the language of **claim 22** as to the exact procedural steps necessary to encompass the claimed invention. Claim 22 recites, (as within paragraphs 2-4), "defining relief areas of the support contour at locations adapted to be adjacent to skin covering the ischial tuberosities, the greater trochanters and the coccyx and sacrum of the pelvic area of the person when the person is supported by the support contour" as well as "defining support areas of the support contour at locations adapted to be adjacent to skin covering tissue masses on opposite lateral sides of the posterior buttocks and beneath the proximal thigh bones when the person is supported by the

Application/Control Number: 10/628,860

Page 6

Art Unit: 3673

support contour" and further recites "positioning the relief areas and the support areas to establish a relatively greater relief clearance at the ischial tuberosities, the greater trochanters and the coccyx and sacrum and to establish a relatively greater support protrusion at the tissue masses on the opposite lateral sides of the posterior buttocks and beneath the proximal thigh bones when the person is supported by the support contour". First of all, it is not clear as to what procedural steps are being defined by "defining relief areas of the support contour..." or "defining support areas of the support contour..." or "positioning the relief areas and the support areas..." For example, how are the "relief areas" defined? How are the "support areas" defined. How are each of the "relief areas" and "support areas" positioned? Is the term "defining" in each of lines 7 and 11 the same as the term "positioning" in line 15?

**Claim 22** goes on to recite "establishing the relatively greater relief clearance of the relief areas and the relatively greater support protrusion of the support areas with respect to an expected representation of the anatomical shape of the pelvic area and the proximal thighs when the person is supported by the support contour" as well as "establishing the relatively greater relief clearance of the relief areas to substantially offload support pressure on the skin adjacent to the ischial tuberosities, the greater trochanters and the coccyx and sacrum when the person is supported by the support contour" as well as "establishing the relatively lesser support protrusion of the support areas to transfer substantially the entire support force for supporting the person on the support contour to the tissue masses at the opposite sides of lateral posterior buttocks and beneath the proximal thigh bone when the person is supported by the support

Application/Control Number: 10/628,860

Page 7

Art Unit: 3673

contour." It is not clear if the "relatively greater relief clearance" actually forms a part of the claimed invention. In other words, does the "relatively greater relief clearance" form part of the cushion or part of the method of forming the cushion to which claim 22 is directed? It would appear that the language of paragraph 4 of claim 22 already sets forth any establishing of "relatively greater relief clearance". Therefore it is not clear as to what paragraph 5 of claim 22 sets forth with respect to the method of forming the cushion. It would appear that the language of paragraph 4 of claim 22 already sets forth any establishing of "relatively greater relief clearance". Therefore it is not clear as to what paragraph 6 of claim 22 sets forth with respect to the method of forming the cushion. Further, it would appear that the language of paragraph 4 of claim 22 already sets forth any establishing of "relatively... [greater] support protrusion". Therefore it is not clear as to what paragraph 7 of claim 22 sets forth with respect to the method of forming the cushion. Actually, it is not clear as to what paragraph 4 of claim 22 sets forth with respect to the method of forming the cushion. The only positive procedural step in paragraph 4 of claim 22 appears to be "positioning the relief areas and the support areas". Also, the term "relatively lesser support protrusion" found in line 31 of claim 22 does not possess an appropriate antecedent within the claim. All in all, it is not clear as to what procedural steps are being defined by the language of claim 22. Claim 22 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 22 cannot be ascertained.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 8

As to claim 24, it would appear that the language of paragraph 4 of claim 22 already sets forth any establishing of "relatively greater relief clearance". Therefore it is not clear as to what claim 24 sets forth with respect to the method of forming the cushion. Claim 24 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 24 cannot be ascertained.

Claim 26 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 26 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "opposite lateral sides of the posterior buttocks" or "the rear of the pelvic area of the person" serves to produce the cushion being manufactured by the method of claim 22. Claim 26 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 26 cannot be ascertained.

Claim 27 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 27 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the proximal thigh bones" or "legs" or "hip joints" or "the skin covering the greater trochanters" serves to produce the cushion being manufactured by the method of claim 22. Claim 27 appears replete with language apparently directed to either of -an intended

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 9

relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 27 cannot be ascertained.

Claim 29 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 29 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the posterior buttocks" or "the tissue masses on the opposite lateral sides of the posterior buttocks" or "the proximal thigh bones" or "the greater trochanters" or "the thigh bones" or "the legs" or "the hip joints" or "the skin covering the greater trochanters" serves to produce the cushion being manufactured by the method of claim 22. Claim 29 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 29 cannot be ascertained.

The language of claim 30 is not clear. It is not understood as to what is being defined by "[a] method as defined in claim 22 applied to configuring a support contour of a seat cushion for wheelchair." What, specifically, is being defined by "applied to configuring a support contour of a seat cushion for wheelchair." Is the language of claim 30 directed to an intended environment of use for the article manufactured by the method of claim 22? Otherwise, it is not clear as to the procedural steps that are being defined by claim 30.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 10

The language of **claim 41** is unclear in that it is not understood how "allowing air movement within the support structure through spaces between the adhered-together plastic beads" serves to produce the cushion being manufactured by the method of **claim 22**. The specification does not appear clear and complete as to "allowing air movement within the support structure through spaces between the adhered-together plastic beads" as a procedural step in the manufacture of a cushion.

**Claim 48** appears to recite language directed to a user, (or at least directed to parts of a user), when the language of **claim 22**, from which **claim 48** depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the proximal thigh bones" or "the hip joints" or "the distal legs" or "the posterior buttocks" or "the pelvic area" serves to produce the cushion being manufactured by the method of **claim 22**. **Claim 48** appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of **claim 48** cannot be ascertained.

**Claim 49** appears to recite language directed to a user, (or at least directed to parts of a user), when the language of **claim 22**, from which **claim 49** depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the pelvic area" or "the hip joints" or "the lateral sides of the posterior buttocks" or "the rear pelvic area" serves to produce the cushion being manufactured by the method of **claim 22**. And, it is not understood how "applying a forward and the upward component of support force from the support areas" serves to produce the cushion being

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 11

manufactured by the method of claim 22. Claim 49 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-.

Therefore, the metes and bounds of the language of claim 49 cannot be ascertained.

Claim 50 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 50 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the opposite lateral sides of the posterior buttocks" or "the proximal thighs" serves to produce the cushion being manufactured by the method of claim 22. And, it is not understood how "applying the upward and forward component of support force from the support areas" serves to produce the cushion being manufactured by the method of claim 22. Claim 50 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 50 cannot be ascertained.

Claim 75 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 75 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "the hip joints" or "the distal legs" or "the greater trochanters of the thigh bones" or "the knee joints of the thigh bones" serves to produce the cushion being manufactured by the method of claim 22. And, it is not understood how "establishing a lever-like mechanical advantage" serves to produce the cushion being manufactured by the method of claim

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 12

22. Does "a lever-like mechanical advantage" form part of the cushion manufactured by the method of claim 22? The specification does not appear to present "a lever-like mechanical advantage" as an element of the cushion being manufactured by the method of claim 22. Claim 75 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 75 cannot be ascertained.

Claim 76 appears to recite language directed to a user, (or at least directed to parts of a user), when the language of claim 22, from which claim 76 depends, appears directed to a method of making a cushion. Therefore, it is not understood how "a perineal area of the person" serves to produce the cushion being manufactured by the method of claim 22. It is not understood how "defining a clearance area of the support structure" serves to produce the cushion being manufactured by the method of claim 22. Does "a clearance area" form part of the cushion manufactured by the method of claim 22? The specification does not appear to present "a clearance area" as an element of the cushion being manufactured by the method of claim 22. And, it is not understood how "using the clearance area adjacent to the perineal area as space for air circulation at the perineal area" serves to produce the cushion being manufactured by the method of claim 22. Claim 76 appears replete with language apparently directed to either of -an intended relationship between the final product and a potential user- or -a presumed effect of the final product upon a potential user-. Therefore, the metes and bounds of the language of claim 76 cannot be ascertained.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 13

As to process of using a cushion, (method of supporting a person? Recited as "method of supporting and relieving pressure"):

It is not clear from the language of claim 31 as to what is being defined as the invention to be patented. Lines 1-4 of claim 31 recite "[a] method of supporting and relieving pressure on anatomical tissues which surround a skeletal structure of a pelvic area and thigh bones of a person when sitting on and supported by a support contour". Examiner cannot ascertain just what Applicant is defining with such a preamble. It is noted that the language of claim 31 has been amended from what had been previously addressed, (i.e., a method of method of supporting a person in a sitting position on a support contour), to read as presently set forth. Is claim 31 directed to a "method of supporting"? Is claim 31 directed to a "method of...relieving pressure"? Otherwise, it is not understood as to what a "method of supporting and relieving pressure" defines. How does one support pressure? And, if it is not the pressure that is being supported then it is not clear as to what is being supported within the invention of claim 31?

Further, lines 6-10 and 11-15 of claim 31 do not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "transferring the substantial entirety of support force for supporting the person to skin and tissue masses on opposite lateral sides of the posterior buttocks of the pelvic area and beneath the proximal thigh bones when the person is supported by the support contour" or "substantially offloading pressure and shear force from skin adjacent the ischial tuberosities, the greater trochanters and the coccyx and sacrum of the pelvic

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 14

area when the person is supported by the support contour by transferring the substantial entirety of the support force to the tissue masses at the posterior lateral buttocks and beneath the proximal thigh bones" does not appear to set forth any procedural steps which are performed by person or machine. Rather, the language within lines 6-15 of claim 31 appears directed to a presumed or desired effect. Therefore, the language of claim 31 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "transforming" performed? How is the so-called step of "substantially offloading" performed? How is the so-called step of "transferring the substantially entirety of the support force" performed? And, lines 3, 9-10, and 13 of claim 31 appear to suggest that there is no method being performed since lines 3, 9-10, and 13 all recite, "when sitting on and supported by a support contour" or "when the person is supported by the support contour". Therefore, with the recitation at lines 3, 9-10 and 13 claim 31 appears to only set forth a desired method if and when a given circumstance occurs.

The language of claim 32, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "substantially eliminating support pressure and shear force on the skin surrounding the ischial tuberosities, the greater trochanters in the coccyx and sacrum during an anticipated range of normal forward and backward and side to side movement of the upper torso" does not appear to set forth any procedural steps, which are performed by

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 15

person or machine. Rather, the language within claim 32 appears directed to a presumed or desired effect. Therefore, the language of claim 32 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "substantially eliminating support pressure and shear force" performed? Further, it is not clear as to what is being defined by "during an anticipated range of normal forward and backward and side to side movement of the upper torso". In other words, what, exactly, is an "anticipated range" and does such range ever occur? And, lines 6-7 of claim 32 appear to suggest that there is no method being performed since lines 6-7 recite, "...of the person when seated on the support contour". Therefore, with the recitation at lines 6-7, claim 32 appears to only set forth a desired method if and when a given circumstance occurs.

The language of claim 35, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "inducing an upward component of support force on the tissue masses on the opposite lateral sides of the posterior buttocks of the person" does not appear to set forth any procedural steps that are performed by person or machine. Rather, the language within claim 35 appears directed to a presumed or desired effect. Therefore, the language of claim 35 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "inducing an upward

Application/Control Number: 10/628,860

Page 16

Art Unit: 3673

component of support force" performed? And, lines 4-5 of claim 35 appear to suggest that there is no method being performed since lines 4-5 recite, "...of the person when seated on the support contour". Therefore, with the recitation at lines 4-5, claim 35 appears to only set forth a desired method if and when a given circumstance occurs.

The language of **claim 36**, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "transferring weight from the legs distal to the proximal thighs in a lever-like manner through the thigh bones to the hip joints as support force to elevate the greater trochanters" does not appear to set forth any procedural steps that are performed by person or machine. Rather, the language within claim 36 appears directed to a presumed or desired effect. Therefore, the language of claim 36 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "transferring weight from the legs distal to the proximal thighs in a lever-like manner" performed? And, lines 5-6 of claim 36 appear to suggest that there is no method being performed since lines 5-6 recite, "...of the person when seated on the support contour". Therefore, with the recitation at lines 5-6, claim 36 appears to only set forth a desired method if and when a given circumstance occurs.

The language of **claim 37** is not clear. It is not understood as to what is being defined by "[a] method as defined in claim 31, applied to supporting a person in a sitting position on the support contour of a wheelchair seat cushion." What, specifically, is

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 17

being defined by "applied to supporting a person in a sitting position on the support contour of a wheelchair seat cushion." Is the language of claim 37 directed to an intended environment of use for the process of claim 31? It is otherwise, not understood as to what is being defined by "applied to supporting the person". Therefore, it is not clear as to what procedural steps are being defined by claim 37.

The language of claim 42 is not clear. Claim 42 appears to present language to a method of forming a cushion when claim 31 from which claim 42 depends is directed to a "method of supporting and relieving pressure" (method of supporting a person in a sitting position?). How, otherwise, does "incorporating the support contour in a support structure of a cushion; and forming the support structure from a matrix of resilient adhered-together plastic beads" serve to define procedural steps which characterize the process of a "method of supporting and relieving pressure"? The language of claim 42 appears identical to that of claim 40. However, claim 40 is directed to a "method of configuring an upward facing support contour". It is not seen how the language of claim 42 can serve as defining a procedural step for both a "method of configuring an upward facing support contour" and a "method of supporting and relieving pressure".

The language of claim 43 is not clear. Claim 43 appears to present language to a method of forming a cushion when claim 31 from which claim 43 depends is directed to a "method of supporting and relieving pressure" (method of supporting a person in a sitting position?). How, otherwise, does "allowing air movement within the support structure through spaces between the adhered-together plastic beads" serve to define procedural steps which characterize the process of a "method of supporting and

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 18

relieving pressure"? The language of claim 43 appears identical to that of claim 41. However, claim 41 is directed to a "method of configuring an upward facing support contour". It is not seen how the language of claim 43 can serve as defining a procedural step for both a "method of configuring an upward facing support contour" and a "method of supporting and relieving pressure".

The language of claim 51, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "inducing an upward and forward component of support force on the tissue masses on the opposite lateral sides of the posterior buttocks" or "transferring weight from the legs distal to the proximal thighs in a lever-like manner through the thigh bones to the hip joints as support force to elevate the hip joints" or "preventing the pelvic area from tipping backward in response to the elevational support force at the hip joints by applying the upward and forward component of support force on the opposite lateral sides of the posterior buttocks to the rear pelvic area" does not appear to set forth any procedural steps which are performed by person or machine. Rather, the language within lines 3-14 of claim 51 appears directed to a presumed or desired effect.

Therefore, the language of claim 51 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "inducing" performed? How is the so-called step of "transferring weight" performed? How is the so-called step of "preventing the pelvic area from tipping backward"

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 19

performed? How is the so-called step of "applying the upward and forward component of support force" performed? And, lines 5, 8-9, and 13-14 of claim 51 appear to suggest that there is no method being performed since lines 5, 8-9, and 13-14 all recite, "when the person is supported by the support contour". Therefore, with the recitation at lines 5, 8-9 and 13-14 claim 51 appears to only set forth a desired method if and when a given circumstance occurs.

The language of claim 52, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "applying the upward and forward component of support force from the support areas on the opposite lateral sides of the posterior buttocks from an uppermost position on the rear pelvic area which is greater in relative height than the support areas at which the weight from the distal legs is transferred in a lever like manner through the thigh leg bones to the hip joints" does not appear to set forth any procedural steps which are performed by person or machine. Rather, the language within claim 52 appears directed to a presumed or desired effect. Therefore, the language of claim 52 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "applying the upward and forward component of support force" performed? How is "the weight [transferred] from the distal legs"?

The language of claim 70, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving

Application/Control Number: 10/628,860

Page 20

Art Unit: 3673

pressure", (method of supporting a person in a sitting position?). The recitation of "inducing an upward and forward component of support force on the tissue masses on the opposite lateral sides of the posterior buttocks" or "transferring weight from the legs distal to the proximal thighs in a lever-like manner through the thigh bones to the hip joints as support force to elevate the hip joints" does not appear to set forth any procedural steps which are performed by person or machine. Rather, the language within lines 2-7 of claim 70 appears directed to a presumed or desired effect. Therefore, the language of claim 70 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "inducing" performed? How is the so-called step of "transferring weight" performed? And, lines 3-4 and 7 of claim 70 appear to suggest that there is no method being performed since lines 3-4 and 7 recite, "when the person is supported by the support contour". Therefore, with the recitation at lines 3-4 and 7 claim 70 appears to only set forth a desired method if and when a given circumstance occurs.

The language of claim 71, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "supporting the proximal thigh bones of the person when supported by the support contour to interact in a fulcrum-like manner with the weight of the legs distal to the proximal thighs to create the elevational support force on the hip joints" does not appear to set forth any procedural steps that are performed by person or machine. Rather, the

Application/Control Number: 10/628,860

Page 21

Art Unit: 3673

language within claim 71 appears directed to a presumed or desired effect. Therefore, the language of claim 71 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "supporting the proximal thigh bones" performed? How is "the elevational support force on the hip joints [created]"? And, lines 2-3 of claim 71 appear to suggest that there is no method being performed since lines 2-3 recite, "...of the person when seated on the support contour". Therefore, with the recitation at lines 2-3, claim 71 appears to only set forth a desired method if and when a given circumstance occurs.

The language of claim 72, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "establishing a lever-like mechanical advantage for increasing the amount of elevational support force at the hip joints from the weight of the distal legs by locating the position of support for the proximal thigh bones closer to the greater trochanters of the thigh bones than to the knee joint of the thigh bones" does not appear to set forth any procedural steps which are performed by person or machine. Rather, the language within claim 72 appears directed to a presumed or desired effect. Therefore, the language of claim 72 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "establishing a lever-like mechanical advantage" performed? How is the so-called step of "locating the

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 22

position of support for the proximal thigh bones" performed? The latter phrase may be an appropriate procedural step for a method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). However, the specification does not appear clear and complete as to how such a step is performed by a person to achieve the method of "supporting and relieving pressure", (method of supporting a person in a sitting position?).

The language of **claim 73**, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "offloading sufficient pressure and shear force to substantially eliminate pressure and shear force on the skin covering the ischial tuberosities, the greater trochanters in the coccyx and sacrum" does not appear to set forth any procedural steps that are performed by person or machine. Rather, the language within claim 73 appears directed to a presumed or desired effect. Therefore, the language of claim 73 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "offloading sufficient pressure and shear force" performed?

The language of **claim 74**, does not appear to recite any procedural steps which are positively performed to accomplish any method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). The recitation of "establishing a clearance area in the support contour located adjacent to a perineal area of the person" or "using the clearance area adjacent to the perineal area as space for air

Application/Control Number: 10/628,860

Page 23

Art Unit: 3673

circulation at the perineal area" does not appear to set forth any procedural steps that are performed by person or machine. Rather, the language within claim 74 appears directed to a presumed or desired effect. Therefore, the language of claim 74 does not appear to present any procedural steps that go to make up the claimed method of "supporting and relieving pressure", (method of supporting a person in a sitting position?). For example, how is the so-called step of "establishing a clearance area in the support contour" performed? How is the so-called step of "using the clearance area" performed? It is noted that the language of claim 74 appears to parallel the language of claim 76. If the so-called procedural step of "defining a clearance area of the support structure" serves to define a method of configuring an upward facing support contour then it is not seen how the so-called procedural step of "defining a clearance area of the support structure" would serve to define a method of "method of supporting and relieving pressure". Likewise, If the so-called procedural step of "using the clearance area adjacent to the perineal area as space for air circulation" serves to define a method of configuring an upward facing support contour then it is not seen how the so-called procedural step of "using the clearance area adjacent to the perineal area as space for air circulation" would serve to define a method of "method of supporting and relieving pressure".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Application/Control Number: 10/628,860

Page 24

Art Unit: 3673

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 are, as best understood, rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,845,352 to Matsler et al.**

As for **claim 53**, Matsler et al. discloses, Fig. 1, (see also attached sheet 1), a cushion extending longitudinally from a rear wall to a front edge, the cushion also extending transversely between opposite transverse edges, each transverse edge extending longitudinally between the rear wall and the front edge; a cavity (designated as 'A' on the attached Figure), located adjacent to the rear wall and spaced rearward from the front edge along the longitudinal midline, the cavity located between and spaced transversely inward from the opposite transverse edges, the cavity extending downward to a lower surface; two transverse relief areas, *(just inside of 20a of edge 20 on either side; designated as 'B' on the attached Figure)*, each transverse relief area spaced transversely to the outside of the cavity and transversely to the inside of the opposite transverse edges, each transverse relief area spaced vertically above the lower surface of the cavity; a channel, *(59 shown along 28; designated as 'C' on the attached Figure)*, in the back wall at a location approximately centered transversely about the longitudinal midline, the channel extending generally vertically upward from the lower surface of the cavity, the channel recessed rearward into the back wall relative to the midline contour of the back wall; two rear support areas, *(22 on either side;*

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 25

*designated as 'D' on the attached Figure), each rear support area located on the back wall on respectively opposite transverse sides of the longitudinal midline, each rear support area located between the channel and one transverse edge, each rear support area protruding forward relative to the midline contour of the back wall, (midline contour being any contour of the back wall), the rear support areas extending vertically downward and longitudinally forward on the back wall toward the lower surface of the cavity; two forward support areas, (the forward supports areas on either side of the longitudinal midline and forward of the cavity; see also Fig. 5; designated as 'E' on the attached Figure), each forward support area located forward of the cavity and spaced transversely to the inside of the opposite transverse edges, each forward support area located on an opposite lateral side of the longitudinal midline from the other forward support area.*

*As for claim 59, Matsler et al. shows a clearance area, (that portion extending upwardly and forwardly from the lower surface of the cavity and approximately centered about the longitudinal midline; also including central 59; designated as 'F' on the attached Figure).*

*As for claim 64, the back wall curves downward and longitudinally forward and transversely inward to the lower surface of the cavity.*

*As for claim 65, the channel has a V-shaped curvature of increasing transverse width with increasing vertical height above the lower surface of the cavity, (as best understood in the same sense as the channel of the instant disclosure).*

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 26

As for claim 66, the rear wall extends from one transverse edge of the cushion adjacent to one transverse relief area around the rear of the cavity to the other transverse edge of the cushion adjacent to the other transverse relief area.

The language of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 is replete with desired effect or a presumed consequence of the claimed cushion. As such, Matsler et al. meets the limitations of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 in that the cushion shown by Matsler et al. can present the same effect depending upon how it is utilized, (e.g., size of person, weight of person, how a person specifically sits upon the cushion, etc.).

Claims 53, 59, and 64-68 appear as the only claims positively reciting actual elements of the invention, process of making and process of using notwithstanding. As such, Examiner has addressed the limitations presented in claims 53, 59, and 64-68.

**Claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 are, as best understood, rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,617,595 to Landl et al.**

As for claim 53, Landl et al. discloses, Fig. 17, (see also attached sheet 2), a cushion extending longitudinally from a rear wall to a front edge, the cushion also extending transversely between opposite transverse edges, each transverse edge extending longitudinally between the rear wall and the front edge; a cavity (designated as 'A' on the attached Figure), located adjacent to the rear wall and spaced rearward from the front edge along the longitudinal midline, the cavity located between and

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 27

spaced transversely inward from the opposite transverse edges, the cavity extending downward to a lower surface; two transverse relief areas, *(just inside of edge 250 on either side; designated as 'B' on the attached Figure)*, each transverse relief area spaced transversely to the outside of the cavity and transversely to the inside of the opposite transverse edges, each transverse relief area spaced vertically above the lower surface of the cavity; a channel, *(214; designated as 'C' on the attached Figure)*, in the back wall at a location approximately centered transversely about the longitudinal midline, the channel extending generally vertically upward from the lower surface of the cavity, the channel recessed rearward into the back wall relative to the midline contour of the back wall; two rear support areas, *(205 on either side; designated as 'D' on the attached Figure)*, each rear support area located on the back wall on respectively opposite transverse sides of the longitudinal midline, each rear support area located between the channel and one transverse edge, each rear support area protruding forward relative to the midline contour of the back wall, *(midline contour being any contour of the back wall)*, the rear support areas extending vertically downward and longitudinally forward on the back wall toward the lower surface of the cavity; two forward support areas, *(the forward supports areas on either side of the longitudinal midline and forward of the cavity; designated as 'E' on the attached Figure)*, each forward support area located forward of the cavity and spaced transversely to the inside of the opposite transverse edges, each forward support area located on an opposite lateral side of the longitudinal midline from the other forward support area.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 28

As for claim 59, Landi et al. shows a clearance area, *(that portion extending upwardly and forwardly from the lower surface of the cavity and approximately centered about the longitudinal midline; designated as 'F' on the attached Figure).*

As for claim 64, the back wall curves downward and longitudinally forward and transversely inward to the lower surface of the cavity.

As for claim 65, the channel has a V-shaped curvature of increasing transverse width with increasing vertical height above the lower surface of the cavity, *(as best understood in the same sense as the channel of the instant disclosure).*

As for claim 66, the rear wall extends from one transverse edge of the cushion adjacent to one transverse relief area around the rear of the cavity to the other transverse edge of the cushion adjacent to the other transverse relief area.

The language of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 is replete with desired effect or a presumed consequence of the claimed cushion. As such, Landi et al. meets the limitations of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 in that the cushion shown by Landi et al. can present the same effect depending upon how it is utilized, (e.g., size of person, weight of person, how a person specifically sits upon the cushion, etc.).

Claims 53, 59, and 64-68 appear as the only claims positively reciting actual elements of the invention, process of making and process of using notwithstanding. As such, Examiner has addressed the limitations presented in claims 53, 59, and 64-68.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 29

**Claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 are, as best understood, rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,503,649 to Johnson.**

As for claim 53, Johnson discloses, Figs. 1 and 2, (see also attached sheet 1), a cushion extending longitudinally from a rear wall to a front edge, the cushion also extending transversely between opposite transverse edges, each transverse edge extending longitudinally between the rear wall and the front edge; a cavity (designated as 'A' on the attached Figure), located adjacent to the rear wall and spaced rearward from the front edge along the longitudinal midline, the cavity located between and spaced transversely inward from the opposite transverse edges, the cavity extending downward to a lower surface; two transverse relief areas, *(just inside of edge 14, 15 on either side; designated as 'B' on the attached Figure [area of 62, 63 or area of 65, 66])*, each transverse relief area spaced transversely to the outside of the cavity and transversely to the inside of the opposite transverse edges, each transverse relief area spaced vertically above the lower surface of the cavity; a channel, *(within 23; designated as 'C' on the attached Figure)*, in the back wall at a location approximately centered transversely about the longitudinal midline, the channel extending generally vertically upward from the lower surface of the cavity, the channel recessed rearward into the back wall relative to the midline contour of the back wall; two rear support areas, *(on either side of the channel and just below 31, 32; designated as 'D' on the attached Figure)*, each rear support area located on the back wall on respectively opposite transverse sides of the longitudinal midline, each rear support area located

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 30

between the channel and one transverse edge, each rear support area protruding forward relative to the midline contour of the back wall, (*midline contour being any contour of the back wall*), the rear support areas extending vertically downward and longitudinally forward on the back wall toward the lower surface of the cavity; two forward support areas, (*the forward supports areas on either side of the longitudinal midline and forward of the cavity such as upper part of area of 55, 56 or of area 40 on either side; designated as 'E' on the attached Figure*), each forward support area located forward of the cavity and spaced transversely to the inside of the opposite transverse edges, each forward support area located on an opposite lateral side of the longitudinal midline from the other forward support area.

As for **claim 59**, Johnson shows a clearance area, (*that portion extending upwardly and forwardly from the lower surface of the cavity and approximately centered about the longitudinal midline such as of 51 or ascending portion of 55, 55; designated as 'F' on the attached Figure*).

As for **claim 64**, the back wall curves downward and longitudinally forward and transversely inward to the lower surface of the cavity.

As for **claim 65**, the channel has a V-shaped curvature of increasing transverse width with increasing vertical height above the lower surface of the cavity, (*as best understood in the same sense as the channel of the instant disclosure*).

As for **claim 66**, the rear wall extends from one transverse edge of the cushion adjacent to one transverse relief area around the rear of the cavity to the other transverse edge of the cushion adjacent to the other transverse relief area.

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 31

The language of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 is replete with desired effect or a presumed consequence of the claimed cushion. As such, Johnson meets the limitations of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 in that the cushion shown by Johnson can present the same effect depending upon how it is utilized, (e.g., size of person, weight of person, how a person specifically sits upon the cushion, etc.).

Claims 53, 59, and 64-68 appear as the only claims positively reciting actual elements of the invention, process of making and process of using notwithstanding. As such, Examiner has addressed the limitations presented in claims 53, 59, and 64-68.

**Claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 are, as best understood, rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,912,788 to Lonardo.**

As for claim 53, Lonardo discloses, Figs. 1 and 2, (see also attached sheet 2), a cushion extending longitudinally from a rear wall to a front edge, the cushion also extending transversely between opposite transverse edges, each transverse edge extending longitudinally between the rear wall and the front edge; a cavity (designated as 'A' on the attached Figure), located adjacent to the rear wall and spaced rearward from the front edge along the longitudinal midline, the cavity located between and spaced transversely inward from the opposite transverse edges, the cavity extending downward to a lower surface; two transverse relief areas, *(just inside of each longitudinal edge on either side; designated as 'B' on the attached Figure)*, each

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 32

transverse relief area spaced transversely to the outside of the cavity and transversely to the inside of the opposite transverse edges, each transverse relief area spaced vertically above the lower surface of the cavity; a channel, *(42; designated as 'C' on the attached Figure)*, in the back wall at a location approximately centered transversely about the longitudinal midline, the channel extending generally vertically upward from the lower surface of the cavity, the channel recessed rearward into the back wall relative to the midline contour of the back wall; two rear support areas, *(on either side; designated as 'D' on the attached Figure)*, each rear support area located on the back wall on respectively opposite transverse sides of the longitudinal midline, each rear support area located between the channel and one transverse edge, each rear support area protruding forward relative to the midline contour of the back wall, *(midline contour being any contour of the back wall)*, the rear support areas extending vertically downward and longitudinally forward on the back wall toward the lower surface of the cavity; two forward support areas, *(the forward supports areas on either side of the longitudinal midline and forward of the cavity; designated as 'E' on the attached Figure)*, each forward support area located forward of the cavity and spaced transversely to the inside of the opposite transverse edges, each forward support area located on an opposite lateral side of the longitudinal midline from the other forward support area.

As for claim 59, Lonardo shows a clearance area, *(that portion extending upwardly and forwardly from the lower surface of the cavity and approximately centered about the longitudinal midline; designated as 'F' on the attached Figure)*.

Application/Control Number: 10/628,860

Page 33

Art Unit: 3673

As for **claim 64**, the back wall curves downward and longitudinally forward and transversely inward to the lower surface of the cavity.

As for **claim 65**, the channel has a V-shaped curvature of increasing transverse width with increasing vertical height above the lower surface of the cavity, (*as best understood in the same sense as the channel of the instant disclosure*).

As for **claim 66**, the rear wall extends from one transverse edge of the cushion adjacent to one transverse relief area around the rear of the cavity to the other transverse edge of the cushion adjacent to the other transverse relief area.

The language of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 is replete with desired effect or a presumed consequence of the claimed cushion. As such, Lonardo meets the limitations of claims 22, 24, 26, 27, 29-32, 35-37, 40-43, and 48-76 in that the cushion shown by Lonardo can present the same effect depending upon how it is utilized, (e.g., size of person, weight of person, how a person specifically sits upon the cushion, etc.).

Claims 53, 59, and 64-68 appear as the only claims positively reciting actual elements of the invention, process of making and process of using notwithstanding. As such, Examiner has addressed the limitations presented in claims 53, 59, and 64-68.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 34

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Matsler et al. '352, Landi et al. '595, Johnson '649, and Lonardo '788 in view of U.S. Patent Application Publication 2005/0025956 to Bainbridge.**

Bainbridge '956 teaches forming support systems, including cushions, of resilient adhered together plastic beads having voids therebetween, lines 13-23 of pp 29 and lines 7-8 of pp146. Therefore, to have formed any of the Matsler et al., Landi et al., Johnson, and Lonardo cushions with a filling of resilient adhered together plastic beads having voids therebetween, thus providing a effective support as deemed necessary, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Bainbridge.

### ***Response to Arguments***

Applicants' arguments filed December 14, 2005 have been fully considered but they are not persuasive.

As for Applicants' citation of *In re Gulack*, the instant article of manufacture claims to a cushion do not positively recite any portion of the human anatomy and therefore do not recite a "functional relationship" between any portion of the cushion and a part of the human anatomy. Indeed, *In re Gulack* refers to a limitation, which appears positively presented within that claimed invention at issue. In the instant application the claims to a cushion do not recite the human anatomy as being part of the claimed article

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 35

of manufacture. Therefore, the human anatomy "is...not structurally or functionally related with the other limitations of the claim[s]".

As for Applicants' assertion that "[t]he present claims define clear structural and functional relationships between the human anatomy with the other features of the claim", The present claims do not define clear structural and functional relationships between the human anatomy with the other features of the claim since the claims to a cushion do not recite the human anatomy as being part of the claimed article of manufacture.

As for Applicants' remark to "[t]he defined support areas and the relief areas are adapted to interact with the anatomy as set forth in the claims", the cushions of the applied prior art can and may interact with the anatomy as set forth in the claims. It is Examiner's position that the presumed effects and desired arrangement recited in the instant claims can be met by any of the applied prior art particularly since 1) the limitations in question are presumed effect or desired consequence and 2) the cushion shown by each of the applied prior art can present the same effect depending upon how it is utilized, (e.g., size and shape of person, weight of person, how a person specifically sits upon the cushion, etc.).

With regard to claims 22, 24, 26, 27, 29, 30, 40, 41, 48-50, 75, and 76, directed to process of making a cushion (recited as "method of configuring an upward facing support contour"), as with the article of manufacture claims the applied prior art serves to read upon claims 22, 24, 26, 27, 29, 30, 40, 41, 48-50, 75, and 76 as they do not positively present any portion of the human anatomy as forming any part of the claimed

Application/Control Number: 10/628,860  
Art Unit: 3673

Page 36

process of making a cushion. The language of claims 22, 24, 26, 27, 29, 30, 40, 41, 48-50, 75, and 76 is replete with language directed to desired effect or a presumed consequence of the claimed cushion. The cushion shown by each of the applied prior art can present the same effect depending upon how it is utilized, (e.g., size and shape of person, weight of person, how a person specifically sits upon the cushion, etc.).

With regard to claims 31, 32, 35-37, 42, 43, 51, 52, and 70-74, directed to process of using a cushion (recited as "method of supporting and relieving pressure"), though a claim to process of using may include a human anatomy the instant claims to the process of using a cushion do not appear to clearly recite the relationship between the human anatomy and the cushion. The language of claims 31, 32, 35-37, 42, 43, 51, 52, and 70-74 appear more directed to what Applicant presumes would take effect if and when a person were to be supported by the cushion. In other words, no clear and understandable procedural steps are being recited within any of claims 31, 32, 35-37, 42, 43, 51, 52, and 70-74.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

M. Safavi  
February 25, 2006



MICHAEL SAFAVI  
PRIMARY EXAMINER  
ART UNIT 354